

REMARKS

Claims 1-37 are pending in the present application and stand rejected. In the Office Action, claims 1-37 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Singh (U.S. Publication 2002/0135781 A1). Applicant respectfully traverses the Examiner's rejections.

As an initial matter, it is believed that Singh, published on September 26, 2002, is not prior art to the present application as a printed publication because it was published after the filing date of the present application, April 2, 2001. Moreover, it is believed that the Examiner's reliance on 35 U.S.C. § 102(e) with respect to the Singh publication is improper. As understood by the undersigned, 35 U.S.C. § 102(e) only applies to issued United States patents, not publications. Should the Singh publication ultimately issued as a patent, then 35 U.S.C. § 102(e) would be applicable to the issued patent.

In any event, submitted herewith are declarations by the inventor of the present application, James Broc Stirton, and the undersigned attorney that establish that, even if the Singh publication were entitled to the March 26, 2001 filing date of that publication, it would still not be prior art to the present application. Accordingly, withdrawal of the rejection based upon Singh is respectfully requested.

Lastly, it is worth noting that Singh does not disclose many aspects of the claimed invention. For example, as understood by the undersigned, Singh is directed to determining the asymmetry of a feature profile, and, in some cases, generating feedback or feedforward control data to account and adjust for the asymmetry. Page 1, ¶ 0010. Singh described a process whereby a feature 61a, such as a gate structure, a trench or a via, is formed above a wafer. Page

3, ¶ 0038. The feature is then irradiated to determine information regarding the profile of the feature, illustrative examples of which are depicted in Figures 2a-2e. Page 4, ¶ 0042. Singh then notes that the asymmetry information regarding, for example, gate structure profiles, may be used to vary a subsequent ion implantation step to compensate for the profile asymmetry of the gate structures. Page 5, ¶ 0058.

As understood by the undersigned, Singh does not anticipate the pending claims for many reasons, even if Singh were considered to be prior art to the present application. For example, with respect to independent claim 1, Singh does not disclose the step of illuminating a plurality of implant regions formed in a substrate with a light source from a scatterometry tool. Nor does Singh disclose the step of generating a trace profile corresponding to the implant profile of the implanted regions. As set forth above, Singh is not directed to determining the profile of any implant regions formed in a substrate.

With respect to independent claim 8, Singh certainly does not disclose the steps of generating a profile trace for a plurality of implant regions formed in a substrate, comparing the generated trace to a target profile trace for the implant regions and then modifying at least one parameter of an ion implant process used to form implant regions on subsequently processed substrates based upon a deviation between the generated profile trace and the target trace.

Similar arguments apply with respect to independent claims 16 and 24, although these independent claims differ in material respects from claims 1 and 8, *i.e.*, they are narrower in certain material respects.

For the aforementioned reasons, it is respectfully submitted that all pending claims are in condition for allowance. The Examiner is invited to contact the undersigned attorney at

(713) 934-4055 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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